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EXAMINER	
PECHHOLD, ALEXANDRA K	
ART UNIT	**PAPER NUMBER**
3671	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 10/685,040	**Applicant(s)** WILCOX, ALAN R.
	Examiner Alexandra K Pechhold	**Art Unit** 3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-6 and 16-19* is/are allowed.

6)☒ Claim(s) *7-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 7, 8, 11, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bazhaw (US 3,716,923) in view of Aiken et al (US 6,590,640) and Morsbach (US 3,618,686).**

Regarding claims 7 and 13, Bazhaw discloses a vehicle (10) having a motor operable connected to at least a pair of traction members, seen as the tires, and operably connected to a first receiver, disclosed as the surveyor's transit. A graduated measurement device mounted generally vertically on the vehicle is seen as target rod (12). A second receiver mounted to the target rod is disclosed as target (37) see in Figs. 2 and 3.

Bazhaw fails to disclose that the first receiver, seen here as the transit, receives a signal from a remote control transmitter. Aiken teaches a method and apparatus for mapping 3-D features, noting that for some extremely hostile environments, an autonomous, deployable mapping apparatus may be desired, so that a remotely operated vehicle would deploy the mapping apparatus to the target area (Col 5, lines

51-62). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method and apparatus of Bazhaw to have the transit be able to receive a signal from a remote control transmitter as taught by Aiken, since Aiken notes in column 5, lines 51-62 that for some extremely hostile environments, an autonomous, deployable mapping apparatus may be desired, so that a remotely operated vehicle would deploy the mapping apparatus to the target area.

Bazhaw also fails to disclose the traction members being driven independently of one another. Morsbach teaches a tracked vehicle, having the advantage of being for use over snow or mountainous terrain (see Col 1, lines 5-15), and each of the track treads can be driven at different speeds (Col 4, lines 57-59). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the wheels of Bazhaw to be independently driven traction members as taught by Morsbach, since Morsbach states in column 1, lines 5-15 that driving the tracks at different speeds allows for better maneuvering of curves and softer ground.

Regarding claim 8, Bazhaw uses handgrips (36) on collar (35) as shown in Fig. 4 to affectuate movement of the road (12). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the manually operated moving means for the rod in Bazhaw to comprise instead an actuator, since automating the process removes the human force required, and such raising and lowering movements are often automated with an actuator to eliminate the need for manual lifting and lowering.

Regarding claim 11, Morsbach discloses traction members as a pair of laterally spaced treads in Figs. 1-4.

Regarding claim 12, the combination of Bazhaw (US 3,716,923), Aiken et al (US 6,590,640), and Morsbach (US 3,618,686) fails to disclose the treads as defining a maximum width of the vehicle of about two feet. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the wheels of Bazhaw having the independently drive treads of Morsbach so that the treads define a maximum width of the vehicle as about two feet, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

3. **Claims 9, 10, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bazhaw (US 3,716,923) in view of Aiken et al (US 6,590,640) and Studebaker (US 3,588,249).**

Regarding claims 9 and 10, Bazhaw discloses a vehicle (10) having a motor operable connected to at least a pair of traction members, seen as the tires, and operably connected to a first receiver, disclosed as the surveyor's transit. A graduated measurement device mounted generally vertically on the vehicle is seen as target rod (12). A second receiver mounted to the target rod is disclosed as target (37) see in Figs. 2 and 3.

Bazhaw fails to disclose that the first receiver, seen here as the transit, receives a signal from a remote control transmitter. Aiken teaches a method and apparatus for mapping 3-D features, noting that for some extremely hostile environments, an autonomous, deployable mapping apparatus may be desired, so that a remotely operated vehicle would deploy the mapping apparatus to the target area (Col 5, lines 51-62). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method and apparatus of Bazhaw to have the transit be able to receive a signal from a remote control transmitter as taught by Aiken, since Aiken notes in column 5, lines 51-62 that for some extremely hostile environments, an autonomous, deployable mapping apparatus may be desired, so that a remotely operated vehicle would deploy the mapping apparatus to the target area.

Bazhaw also fails to a debris member mounted to the vehicle. Studebaker teaches a debris member mounted to a vehicle, seen as grader blade (32) on grader (31), whose elevation is adjustable by conventional means such as a hydraulic motor (33), and the grader (31) operates receives a signal beam (Col 5, lines 57-64 and Fig. 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the vehicle of Bazhaw to include a debris member mounted to the vehicle as taught by Studebaker, since Studebaker states in column 5, lines 57-64 that a signal receiving vehicle can operate with a hydraulically driven grader blade, which therefore has the advantage of grading the earth in front of it to facilitate a level surface. With respect to the further recitation in claim 10, the actuator of Studebaker is capable of remote control operation, since the applicant is only reciting intended use which requires the actuator to be capable of performing.

Regarding claim 14, Bazhaw discloses a vehicle (10) having a motor operably connected to at least a pair of traction members, seen as the tires, and operably connected to a first receiver, disclosed as the surveyor's transit. A graduated measurement device mounted generally vertically on the vehicle is seen as target rod (12). A second receiver mounted to the target rod is disclosed as target (37) see in Figs. 2 and 3.

Bazhaw fails to disclose that the first receiver, seen here as the transit, receives a signal from a remote control transmitter. Aiken teaches a method and apparatus for mapping 3-D features, noting that for some extremely hostile environments, an autonomous, deployable mapping apparatus may be desired, so that a remotely operated vehicle would deploy the mapping apparatus to the target area (Col 5, lines 51-62). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method and apparatus of Bazhaw to have the transit be able to receive a signal from a remote control transmitter as taught by Aiken, since Aiken notes in column 5, lines 51-62 that for some extremely hostile environments, an autonomous, deployable mapping apparatus may be desired, so that a remotely operated vehicle would deploy the mapping apparatus to the target area.

Bazhaw also fails to a debris member on the elevation measurement vehicle for movement between as lowered position for moving debris to facilitate obtaining an accurate elevation measurement and a raised position. Studebaker teaches a debris member mounted to a vehicle, seen as grader blade (32) on grader (31), whose elevation is adjustable by conventional means such as a hydraulic motor (33), and the grader (31) operates receives a signal beam (Col 5, lines 57-64 and Fig. 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the vehicle of Bazhaw to include a debris member mounted to the vehicle as taught by Studebaker, since Studebaker states in column 5, lines 57-64 that a signal receiving vehicle can operate with a hydraulically driven grader blade, which therefore has the advantage of grading the earth in front of it to facilitate a level surface.

4. **Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bazhaw (US 3,716,923), Aiken et al (US 6,590,640), and Studebaker (US 3,588,249) as applied to claim 14 above, and further in view of Morsbach (US 3,618,686).** The combination of Bazhaw, Aiken, and Studebaker fails to disclose the traction members being a pair of laterally spaced treads. Morsbach teaches a tracked vehicle, having the advantage of being for use over snow or mountainous terrain (see Col 1, lines 5-15).It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the wheels of Bazhaw to be a pair of laterally spaced treads as taught by Morsbach, since Morsbach states in the abstract that the tracked vehicle is useful especially in snow or mountainous terrain.

Allowable Subject Matter

5. Claims 1-6 and 16-19 are allowed.

Response to Arguments

6. In applicant's 12/23/04 response to the Examiner's 9/29/04 Office Action, the applicant incorporated the subject matter that the Examiner indicated was allowable into the independent claims to put the application in condition for allowance. Upon further search and consideration of the prior art, the Examiner is withdrawing some of the previously indicated allowable subject matter in light of the new references used to reject these claims. Therefore, this action is made non-final, since the Examiner is applying new art to reject previously indicated allowable claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexandra Pechhold whose telephone number is (703) 305-0870. The examiner can normally be reached on Mon-Thurs. from 8:00am to 5:30pm and alternating Fridays from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached on (703)308-3870. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.

Thomas B. Will
Supervisory Patent Examiner
Group 3600

AKP
3/22/05